

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

APPLICANTS: OH, Jae-Hyuk *et al.*  
SERIAL NO.: 10/561,559  
FILED: 12/19/2005  
GROUP ART UNIT: 3654  
EXAMINER: Kruer, Stefan  
CONFIRMATION No.: 9936  
FOR: Elevator Active Suspension Utilizing Repulsive  
Magnetic Force

Mail Stop AF  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**REPLY BRIEF**

Dear Sir:

This is in reply to the Examiner's Answer mailed on June 3, 2009.

Appellant wishes to point out that in addition to the disagreement with the Examiner's interpretation of the *He, et al.* reference articulated in Appellant's opening brief, it is worth noting that the Examiner incorrectly contends that the *He, et al.* reference includes "electromagnets on said car and said car follower portions interacting to force said elevator car to be centered between said car follower portions." (Page 3 of Examiner's Answer). There is no such teaching in the *He, et al.* reference.

There are no electromagnets on a car and a car follower portion in that reference. Instead, as explained in the reference, the electromagnets 130 are mounted on the safety planks 120 of the frame and reaction plates 134 are mounted to the platform 112. Therefore, it is not a proper interpretation of the reference to say that there are "electromagnets on said car and said

car follower portions." There are no electromagnets associated with the frame and the platform 112 in the *He, et al.* reference.

Further, there is no "interacting" between electromagnets in the *He, et al.* reference. Instead, the electromagnets 130 only react with the reaction plates 134 using an attractive force. There is no interaction between electromagnets in the *He, et al.* reference.

The Examiner makes further comments in this regard on page 5 of the Examiner's Answer where the Examiner suggests that "paired electromagnets" are used in the *He, et al.* reference somehow similar to electromagnets in the *Kurosawa, et al.* reference. On page 6 the Examiner contends that the electromagnets of the *He, et al.* reference somehow "work in tandem" without any support from the specification, whatsoever.

The Examiner's reference to the "push/pull" motion in the *He, et al.* reference does not lead to a conclusion that there is interaction between electromagnets. Instead, that statement in the *He, et al.* reference means that one electromagnet is used to pull in one direction independent of another electromagnet oriented in the opposite direction. The other electromagnet would be used to pull in the opposite direction independent of the one. In other words, one magnet is used to move the platform relative to the frame in one direction while the other magnet is used to move the platform relative to the frame in an opposite direction. The two electromagnets never work together, do not work in tandem and do not interact in any way.

It follows that the Examiner's interpretation of the *He, et al.* reference is not supported by the reference because there are no electromagnets on the different components as suggested by the Examiner, there is no interaction between them and they do not operate as the Examiner suggests.

With regard to the *Kurosawa, et al.* reference, Appellant now recognizes which part the Examiner is pointing to for supporting the Examiner's position regarding the use of a repulsive force. Even with that, the proposed combination cannot be made. As already pointed out by Appellant, changing the *He, et al.* reference by using the teachings of the *Kurosawa, et al.* reference would change the principle of operation in the *He, et al.* reference. Such a modification cannot be used to manufacture a *prima facie* case of obviousness. Appellant respectfully disagrees with the Examiner's interpretation of the principle of operation in the *He,*

*et al.* reference. Again, the Examiner suggests that there is somehow a tandem cooperation or interaction between electromagnets in the *He, et al.* reference. That is nowhere found in the reference. Instead, one electromagnet pulls in one direction independent of the other. The other electromagnet pulls in an opposite direction independent of the one. There is no interaction between them. They do not work together.

The principle of operation in that reference is to use an electromagnet 130 and to complete a magnetic flux circuit using a reactive plate 134 and causing the plate to be attracted to the electromagnet when it is energized. If one were to substitute in the teachings from the *Kurosawa, et al.* reference extracted by the Examiner, that would change the principle of operation by including a force in an opposite direction and eliminating the reactive plate that completes the magnetic flux circuit described in the *He, et al.* reference. Such a change to the principle of operation of a reference (such as causing it to work in an opposite manner as it is described) cannot be made for purposes of trying to manufacture a *prima facie* case of obviousness.

The Examiner's proposed combination cannot be made and there is no *prima facie* case of obviousness.

With regard to the dependent claims, those rejections are traversed on the same grounds. Appellant has not waived any argument that those claims are also patentable.

Respectfully submitted,



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